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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/612,083	07/02/2003	Kevin T. Chan	14228US01	5841
23446	7590	11/24/2004	EXAMINER	
MCANDREWS HELD & MALLOY, LTD 500 WEST MADISON STREET SUITE 3400 CHICAGO, IL 60661			BOCURE, TESFALDET	
			ART UNIT	PAPER NUMBER
			2631	

DATE MAILED: 11/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/612,083	Applicant(s) CHAN, KEVIN T.	
	Examiner Tesfaldet Bocure	Art Unit 2631	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 10-13, 21-23 and 29-33 is/are rejected.
- 7) ☒ Claim(s) 4-9, 14-20 and 24-28 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10/31/04</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. The Information Disclosure Statement (PTO form 1449) received on October 31, 2003 has been considered by the Examiner and the initialed copy of the 14489 is attached with this correspondence.

Drawings

2. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.121(d)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claims 1-3,10-13,21-23 and 29-33 rejected under 35 U.S.C. 103(a) as being unpatentable over Agazzi (US Patent Application Publication No. 2004/0170226 A1)

Agazzi teaches a communication system having a transmitter (figures 2A, 4 and 11) and receiver, wherein the transmitter comprising: a plurality of encoders (405,407,419,1111-1115); and a plurality of digital-to-analog converters (409,417 and 421 in fig.4 and 1119-1123 in fig.11) as in claims 1,11,21 and 33.

As to the claimed "reducing transmitter emissions" in the preamble of claims 1,11 and 21, it is intended use and the body of the claim does not reflect to the claimed subject matter in the preamble, therefore no patentable weight is given.

Agazzi does not show that the plurality of encoders are clocked by a respective first and second clocks as in claims 1,11 and 21, such clocking of encoders or any circuitry for processing data is widely known and examiner is taking official notice.

As to the claimed encoders and DAC are integrated in a chip in claim 32, it is widely known to incorporate a plurality of circuits into a single chip. Therefore, it would have been obvious to one of an ordinary skill in the art to incorporate the components of the transmitter, encoder and DAC, of **Agazzi** into a single integrated chip at the time the invention was made.

Further to claims 30 and 31, **Agazzi** shows that a filter 209,217 and 223 (claim 31) for generating the wave form (claim 30).

Even though **Agazzi** does not show that the encoders are partitioned as even and odd encoders as in claims 2,3,12,13 and 22-23, he shows that the transmitter can transmit Inphase (even) and Quadrature (odd) channels. Therefore it obvious design

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choice to classify the encoders of **Agazzi** into even and odd encoders for processing inphase and quadrature signals respectively at the time the invention was made.

Further to claim 10, even though **Agazzi** does not show that the clock signal for clocking the second encoder is delayed with respect to the first clock, since the system can transmit QAM modulated and encoded signals, it is obvious that the Inphase signal should be clock at a delayed clock signal with respect to the quadrature at the time the invention was made.

Allowable Subject Matter

5. Claims 4-9,14-20 and 24-28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US patent Application Publication number 2002/0105592 to Felts, III et al disclose a receiver having a plurality of encoders and corresponding DAC.

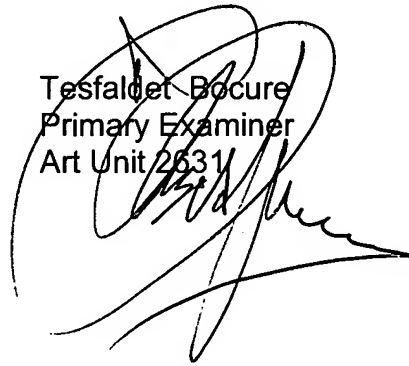
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tesfaldet Bocure whose telephone number is (571) 272-3015. The examiner can normally be reached on Mon-Thur (7:30a-5:00p) & Mon.-Fri (7:30a-5:00p).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad H Ghayour can be reached on (571) 272-3021. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tesfaldet Bocure
Primary Examiner
Art Unit 2631

A handwritten signature in black ink, appearing to read 'Tesfaldet Bocure', is written over the printed name and title.

T.Bocure